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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No.: 6249
Morris <i>et al.</i>	Art Unit: 1615
Appl. No. 09/933,709	Examiner: Pulliam, Amy E.
Filed: Aug. 22, 2001	Atty. Docket: 1533.0520001/JAG/LAV
For: Method of Producing Vitamin Powders	

Declaration of Charles A. Morris Under 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The undersigned, Charles A. Morris, declares and states that:

1. I am a co-inventor of the above-captioned U.S. patent application number 09/933,709, filed August 22, 2001, entitled, "Method of Producing Vitamin Powders."
2. I am employed as Manager of Arkady Research with Archer Daniels Midland, in Olathe, KS, the assignee of record of the above-referenced patent application.
3. I am the subject of the *Curriculum Vitae* attached as Exhibit A. On the basis of the information and facts contained in these documents, I submit that I am an expert in the fields of food additives and preservatives, which includes being skilled in the arts of food processing, preservation and extrusion technology.
4. I have read and understand the subject matter of the above-captioned patent application.

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5. I have read and understand the Office Action dated April 2, 2003, Paper No. 11, particularly the sections at pages 3-5 in which claims 18-46 have been rejected under 35 U.S.C. §103(a) for obviousness.

6. I have read and understand U.S. Patent No. 4,603,143 to Schmidt (US '143), cited by the Examiner in the rejection under 35 U.S.C. §103(a).

7. Exhibit B is a true and authentic copy of page 79 of lab notebook 018, which was created by Lee Willis under my direct supervision at the ADM laboratory facility in Arkady, Kansas. The data contained in Exhibit B was collected in the regular course of business as defined by Rule 803(6) of the Federal Rules of Evidence.

8. Exhibit B contains data that relates to the flowability and oil absorption of vitamin powders produced with the following commercial silicon dioxide products: Sipernat 22, Syloid 244 FP, Aerosil 200, Sipernat 50, Aerosil R 972, Sipernat 22S, and Sipernat 50S. Micro Cel-C and Hubersorb 600 are not silicon dioxide products, but instead are calcium silicate, therefore they are not relevant to the discussion regarding silica particle size in the production of vitamin powders.

9. The particle sizes, oil absorption, evaluation and acceptance for processing of the silicon dioxide products listed in Exhibit B are represented in the chart below:

Name	Size	Oil Absorption	Evaluation	Acceptance for Processing
Syloid 244 FP	3 microns	fair-good	chunky	no
Sipernat 22S	7 microns	good to very good	chunky	no
Sipernat 50S	7.5-8 microns	fair-good	chunky	no
Aerosil 200	12 microns	very good	gritty	yes
Aerosil R 972	16 microns	very good	very gritty	no

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Name	Size	Oil Absorption	Evaluation	Acceptance for Processing
Sipernat 50S	50 microns	good	smooth	yes
Sipernat 22	100 microns	very poor	chunky	no

10. Exhibit B shows flowability and oil absorption data for vitamin powders produced with silica of sizes ranging from 3 microns to 100 microns. This data shows that of all the silicon dioxide tested, Sipernat 50 (50 microns) produced a "smooth" end product. "Smooth," as used to describe the properties of the vitamin powders in Exhibit B indicates that the powder is free-flowing. The "gritty" and "chunky" vitamin powders produced with silicon dioxide outside the 40-50 micron particle size range were not free-flowing as is contemplated by the above-captioned patent application. Thus, the use of silicon dioxide particles within the 40-50 micron size range is necessary to produce the free-flowing vitamin powders of the above-captioned application.

11. Based on the data collected relating to vitamin powders produced with silica particles outside the 40-50 micron size range, it was an unexpected discovery that the 40-50 micron silicon dioxide particle size range was so important to successful production of the free-flowing vitamin powders of the present invention.

12. I have read and understood 37 C.F.R. § 10.18 (b) and (c).

9-4-03

Date



Charles A. Morris

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Exhibit A
Appl. No. 09/933,709

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Professional Experience:

July, 1992 to Present
 Archer Daniels Midland
 Olathe, Kansas

Manager of Arkady Research
 October 2001

ADM Specialty Ingredients Division

Responsible for research for ADM in snack, mix, cereal and bakery areas. Direct R&D effort at Olathe location.

Direct work in laboratory on the development of new ingredients and applications. Provide direct support for customers in the use of ADM ingredients in the bakery, cereal, specialty mix and snack areas. Will support ADM products by providing technical information through presenting seminars and contributing information articles in professional food trade publications.

Technical Service Manager ADM Arkady

Ogilvie Mills Inc. was purchased July 1992 by Archer Daniels Midland. I am the Technical Service contact at ADM Arkady providing technical information for customers interested in wheat starch, wheat gluten, dry honey, dry molasses and enrichments. I direct application work that would use these products in bakery and non-bakery applications. After ADM purchased Ogilvie I worked with ADM's corn processing division in Decatur, I was doing technical service work with ADM's corn sweeteners plus Ogilvie products. Company expert on drum drying starch and sweeteners.

Principal accountabilities:

- Provide technical assistance to national and international customers through correspondence and field trips.
- Direct product application in the development of new products and customer applications.
- Write ingredient specifications for dry sweetener products and starch gluten products.
- Develop product specifications for dry honey and molasses products.
- Write Material Safety Data Sheets.
- Update and produce new product data sheets for food ingredients.
- Development of Quality Control procedures and methods for laboratory.
- Computer coordinator for ADM Arkady.

1985 to July, 1992
 Ogilvie Mills, Inc.
 Minneapolis, MN

Technical Service Manager

Ogilvie Mills, Inc. purchased the Food Ingredients Division of Henkel Corporation in 1985. I worked as Technical Service Manager providing technical service in support of company sales of starch, gluten, Dry honey, dry molasses, dry malt, pea fiber and specialty vitamin blends.

Principal accountabilities:

- Provide technical assistance to national and international customers through correspondence and field trips.
- Direct product application laboratory in the development of new products and customer applications.
- Write ingredient specifications for dry sweetener products.
- Develop product specifications for dry honey and molasses products.

- Write Material Safety Data Sheets.
- Update and produce new product data sheets for food ingredients.

1977 - 1985

Henkel Corporation
Minneapolis, MN

General Mills Chemicals, Inc. was purchased by Henkel Corporation. Continued to work in Process Development, food ingredients area. Worked at both production plant and pilot plant levels with wheat starch, gluten and dry honey and dry molasses. Major project was the start-up of new products on single and double roll drum dryer. Work on startup of starch gluten production plant.

1976 - 1977

General Mills Chemicals, Inc.
Minneapolis, MN

Developmental Technician - worked in laboratory and pilot plant on new chemical development. Major areas worked in were guar gums, liq reagents and distillation of sterols.

Patents

U.S. Patent 4,501,758 Honey Coated Nuts
U.S. Patent 4,738,865 Coating Adhesive (food grade)
U.S. Patent 4,800,097 Dried Nutmeat and Starch Food Product and Process (drum dryer)
U.S. Patent 4,919,956 Methods for Drying Honey and Molasses (extruder)
U.S. Patent 4,981,707 Dextrin-Based Food-Grade Adhesive Including Xanthan or Carboxymethylcellulose or Mixtures Thereof
U.S. Patent 6,303,167 Dry vitamin powder

Education

1975

University of Tampa

Tampa, Florida

Bachelor of Science,

Major: Biology

Minor: Chemistry

Professional Memberships

Institute of Food Technology Professional Member
American Association of Cereal Chemists
American Society of Baking Engineers
American Oil Chemist Society

From: Charles Morris 913-782-8801 To: Laura Voter

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M ARCADY

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Exhibit B

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79

Project No. 018
Book No. 018Vitalex - 60Page No. 1Purpose To determine if we can produce a product similar to
Dow-Cast - 60 from Gedco

Do Cast - 60 Sieved Legend, EOM, West Floor, x Siliion Propil

	#1	#2	#3	#4	#5	#6	#7	#8
Ethoxyated Mono.	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
West floor	20.0	30.0	20.0	20.0	20.0	20.0	10.0	15.0
Aerol 200	20.0	+	+	+	+	+	+	+
Sylvol 374		10.0				20.0		
Sipernol 50			20.0					25.0
Sipernol 22				20.0				7.0
Calcium Silicate					32.0		30.0	
	#*	**	**	**	**	**	OK	OK

* Would not peg well, too craggy

* Would not process very well in production

SIP absorption Evaluation (5:1 oil/canister)

	SIP absorption	acceptance for processing
Sipernol 22	Very poor, chunky	No
Micro Cel - 7	Good, some slacks	Yes
Sylvol 200 FP	Fair - Good chunky	No
Aerol 200	Very Good, gritty	Yes +
Sipernol 50	Good smooth	Yes +
Aerol 200	V. Good, very gritty	No
Sipernol 225	Good - V. Good chunky	No
Sipernol 505	Fair - Good, chunky	No
Underseal 600	Very Good, slightly	Yes +
	#9	
Stonelited 4000	25.0%	
Sipernol 50	25.0	

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TOTAL P. 01